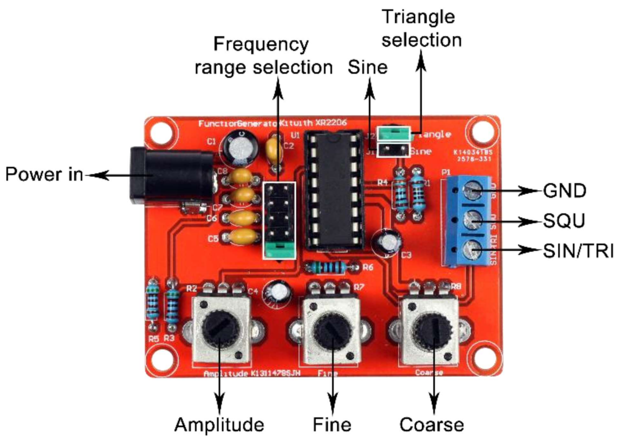
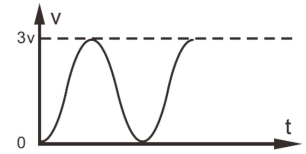
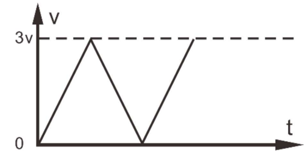
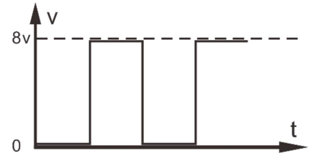
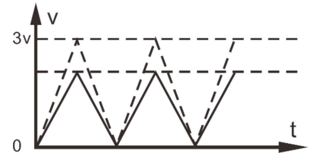
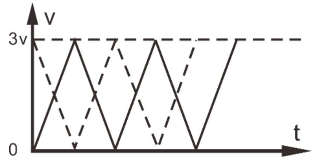
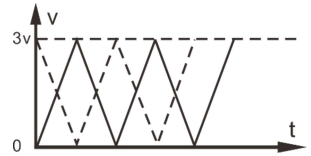
XR2206 Multi-Function Generator

User Manual

Introduction



X2206 monolithic integration function generator generates high quality, high stability, high precision sine wave, square wave and triangular wave, can realize frequency modulation and amplitude modulation, suitable for circuits such as waveform generation, Scan production, AM/FM generation, FSK generation, and a phase-locked loop.

Operation	Function	Wave
Short J1 Jumper	SIN/TRI port output sine wave	
Short J2 Jumper	SIN/TRI port output triangular wave	
	SQU port output square wave	
AMP tune	Tune the amplitude of triangular wave/sine wave	
Fine tune	Fine tune the frequency of square wave/ triangular wave/ sine wave (select different gear through Jumper Cap)	
Coarse tune	Coarse tune the frequency of square wave/ triangular wave/ sine wave (select different gear through Jumper Cap)	

Feature

- It can generate 3 stable waveforms including sine wave, square wave, and triangular wave
- Frequency adjustable from 1Hz~1MHz with fine tune and coarse tune
- Amplitude tunable

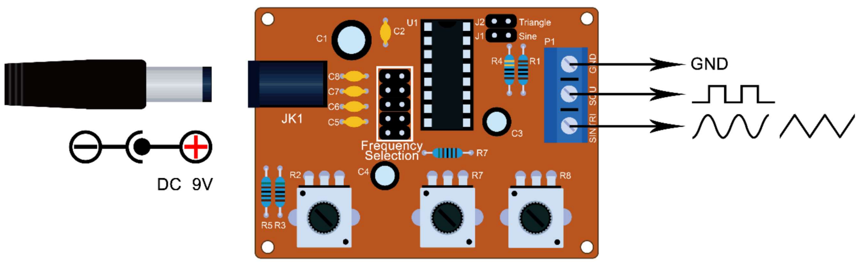
Components soldering guide

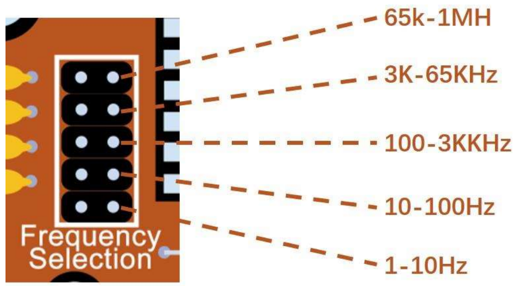
Label	Type	Value	Note
R1	resistor	1K	Regardless of the polarity
R2	Potentiometer	B503=50K	(by screen printing layer)
R3, R5, R6	resistor	5.1K	Regardless of the polarity
R4	resistor	330	Regardless of the polarity
R7	Potentiometer	B503=50k	(by screen printing layer)
R8	Potentiometer	B104=100k	(by screen printing layer)
C1	Electrolytic capacitor	100UF	The positive long feet
C2	Ceramic capacitor	104	Regardless of the polarity
C3, C4	Electrolytic capacitor	10UF	The positive long feet
C5	Ceramic capacitor	105	Regardless of the polarity
C6	Ceramic capacitor	473	Regardless of the polarity
C7	Ceramic capacitor	222	Regardless of the polarity
C8	Ceramic capacitor	101	Regardless of the polarity
U1	IC(XR2206)		(by screen printing layer)
JK1	DC POWER		(by screen printing layer)
J1	2PIN Jumper cap(XM2.54)		Regardless of the polarity
J2	2PIN Jumper cap(XM2.54)		Regardless of the polarity
P1	Signal wire terminal		(by screen printing layer)
J3	2*5P Jumper cap		

Soldering steps

1. The components on top of the board, from low to high principles, namely the first low soldering components, such as a capacitor, resistor, diode, etc.
2. Soldering IC socket, terminal blocks, finally power socket, an adjustable potentiometer.
3. The back with diagonal cutting pliers to cut short the pins as far as possible.

Wiring Diagram





Specification

Voltage Supply: 9-12V DC Input
Waveforms: Square, Sine & Triangle
Impedance: 600 Ohm + 10%
Frequency: 1Hz-1MHz
screwdriver length: 100MM

➢ *SQUARE WAVE*
Amplitude: 8V (without load) at 9V DC Input
Rise Time: Less than 50ns (at 1KHz)
Fall Time: Less than 30ns (at 1KHz)
Symmetry: Less than 5% (at 1KHz)

➢ *SINE WAVE*
Amplitude: 0-3V at 9V DC Input
Distortion: Less than 1% (at 1KHz)
Flatness: +0.05dB 1Hz - 100kHz

➢ *TRIANGLE WAVE*
Amplitude: 0-3V at 9V DC Input
Linearity: Less than 1% (up to 100KHz) 10mA

Quick Start Guide

Here we introduce how to generate sine wave in a simple way:

- Step1: Short J1 Jumper.
- Step2: Short 1 of the 5 jumper caps on frequency range selection area.
- Step3: Power on, then SIN/TRI port generates sine wave
- Step4: Spin Potentiometer Amp, you can tune amplitude
- Step5: Spin Potentiometer Fine, you can fine tune signal frequency
- Step6: Spin Potentiometer Coarse, you can coarse tune signal frequency

Note

- The board takes 9-12V DC power supply, cannot exceed 12V!
- After completion of soldering on IC, XR2206, pay attention to the direction of IC, insert in reverse might damage the chip!
- Soldering IC socket, terminal blocks, finally power socket, an adjustable potentiometer.
- Trim the components legs as short as possible to avoid short circuit.

Contact us

If any problem, feel free to contact us.
Website: www.uctronics.com
Email: support@uctronics.com